

**DEPARTMENT OF VETERANS AFFAIRS
VETERANS HEALTH ADMINISTRATION
OFFICE OF INFORMATION**

BAR CODE MEDICATION ADMINISTRATION

The Department of Veterans Affairs (VA) is the largest integrated health care system in the United States. The Bar Code Medication Administration (BCMA) Project is a significant example of VA's role in developing healthcare technology. VA was one of the first medical organizations to develop and pilot Bar Code Medication Administration technology in 1994 by field staff at the Topeka Veterans Affairs Medical Center (VAMC) to improve medication administration and patient safety. By 1999, the BCMA Team developed a point-of-care medication validation system for all Veterans Health Administration (VHA) medical centers and long-term care facilities.

BCMA is a leading-edge software technology that is PC-based and connected to the primary server via a wireless local area network (LAN) making this real-time system entirely portable. The use of BCMA software and wireless technology at the point-of-care improves the efficiency and accuracy of the medication administration process. The system provides real-time patient medication information, ensures medication administration accuracy and increases the availability of medication administration documentation at the point-of-care.

In September 2003, as a result of this significant technology, 100% of all wards were documenting medication administrations using BCMA. Through the use of the BCMA system, VA has substantially reduced the occurrence of medication errors.

BCMA implementation has enhanced the practice of nurses, pharmacists and many other healthcare professionals. The BCMA Project is a national model for improving medication administration accuracy and patient safety.

Quantitative and qualitative benefits achieved through BCMA are numerous. The general benefits are derived as a result of utilizing an automated medication administration system. Examples of these benefits include:

- greatly improved and automated documentation of medication administration (to detect, mitigate, and report medication errors);
- improved quality of care;
- enhanced clinical decision-making;
- standardized medication administration processes and procedures;
- multiple software application uses of the BCMA equipment; and
- ability to track breakdowns in the medication administration process.

Use of bar code technology, in conjunction with real-time medication administration information, provides easily accessible data that enhances clinical decision-making, as well as case management.

Over and above reducing medication errors, the objective of BCMA, in the most general terms, is to improve the quality of care. Clinicians have immediate access to patient and drug information at the point-of-care. Decision-making capabilities are improved and communication between nurses, pharmacists, and physicians is enhanced through the use of the software.